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ABSTRACT

The two articles in this newsletter issue focus on and discuss the multiple intelligences (MI) theory and its application in schools. Developed by Howard Gardner at Harvard University, the theory argues that individuals differ in their abilities, learning styles, and interests, and that these differences need to be acknowledged and nurtured in schools. The first article, "The MI Provocation," narrates a conversation with Howard Gardner in which some of the questions raised concern his vision of an ideal school, the effect of his theory on schools, the methodology of applying such a theory, and the problems it poses for implementation in educational settings. Included is a description of the seven main intelligences posited by Gardner: musical, bodily-kinesthetic, logical-mathematical, linguistic, spatial, interpersonal, and intrapersonal. The second article, "The MI Key," describes the Key School in Indianapolis, Indiana, founded by a group of teachers who use the concepts surrounding multiple intelligences theory to empower their students. A sidebar explores how multiple intelligences theory has been implemented at a school in St. Louis, Missouri, where the primary emphasis is on developing interpersonal and intrapersonal intelligences. (BAC)

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# RESEARCH AND THE CLASSROOM

THE NATIONAL CENTER FOR EFFECTIVE SCHOOLS

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# *Multiple Intelligences Theory in Action*

In this issue of RESEARCH AND THE CLASSROOM, we turn our attention to the provocative multiple intelligences (MI) theory developed by Howard Gardner at Harvard University. Building from the Fall 1993 issue of our quarterly, FOCUS IN CHANGE, which presented a debate about gifted and talented education, we focus now on some of the central tenets of MI theory and how these are being applied in schools.

At the essence of MI theory is the argument that individuals differ in their abilities, learning styles, and interests—and that these differences need to be acknowledged and nurtured in schools. Gardner posits seven main intelligences: musical, artistic, bodily-kinesthetic, logical-mathematical, linguistic, spatial, interpersonal, and intrapersonal. It is important to note that most people possess a combination of these intelligences; they seldom operate in isolation.

What are the implications of identifying and nurturing these intelligences? If schools work to apply the concepts of MI theory, they take a giant step toward enacting a different scenario for learning. But what should educators consider prior to changing their present procedures? Is it possible, through early identification and emphasis on a student's strengths, to track too narrowly the child's career trajectory? Who decides which intelligences should receive the most educational focus? What is the ultimate effect upon youth?

In our first article, we speak to Howard Gardner about the genesis of MI theory's application to educational settings, asking his vision of an ideal school. Gardner is adamant that MI theory is not a rigid collection of recipes for school improvement, nor does it lend itself to simplistic applications. Rather, he sees MI theory as a useful structure for school staff that empowers them to enact some of their own educational beliefs—many of which do not thrive in the conventional school setting.

Our second article focuses on the Key School in Indianapolis, the first public school in the country to devote itself to applying MI theory schoolwide. We learn how one set of teachers created a school with a mission that centers around empowering students to make choices based on their strengths and talents, and we learn about complex issues with which they continue to contend.

Finally, we present a vignette from a totally different setting: the New City School in St. Louis—an independent school where an emphasis on aesthetic education has been paramount for some time. We hope this issue helps inform school staff, researchers, and educational policymakers of some of the issues surrounding MI theory and its application in schools.

# THE MI PROVOCATION

*How can the theory of multiple intelligences affect schools? How should educators proceed if they are interested in applying the theory's concepts to their own schools and districts? Are there aspects of the theory that pose special problems for implementation in educational settings?*

*To gain perspective on these and other questions, we talked to Howard Gardner, best known in educational circles for his theory of multiple intelligences, a critique of the notion that there exists but a single human intelligence that can assessed by standard psychometric instruments. Gardner is Professor of Education and Adjunct Professor of Psychology at Harvard University, Adjunct Professor of Neurology at the Boston University School of Medicine, and co-Director of Harvard Project Zero. The recipient of many honors, including a MacArthur Prize Fellowship, he is the author of fourteen books and several hundred articles.*

*Recently, he and colleagues at Project Zero have been working on the design of performance-based assessments, education for understanding, and the use of multiple intelligences to achieve more personalized curriculum, instruction, and assessment. He has joined also with Theodore Sizer, James Comer, and the Educational Development Center in Project ATLAS, an initiative funded by the New American Schools Development Corporation. Members of the consortium which forms Project ATLAS (Authentic Teaching, Learning, and Assessment for all Students), have worked in 800 different schools with students of all ages and economic strata.*

To Howard Gardner, understanding the flexibility of multiple intelligences theory is central to any discussion educators might have about its application in schools. He is adamant that the theory is not a collection of rigid, prescribed scripts that schools must enact in the same way in all settings and contexts; nor is it a simplistic cookbook for school improvement. Indeed, he explains with some bemusement that the theory has become a sort of Rorschach for educators, upon which they are able to project their own beliefs and goals.

"Multiple intelligences theory," Gardner begins, "is a provocation. It gets people to think about kids as being very different kinds of individuals from one another. People are able to draw very different kinds of conclusions from that.

"For example, some say that if the concept of multiple intelligences is true, you should find a child's strength and try to develop it as much as possible. Others say we have to be sure we develop all the intelligences, with the implication that if the child has difficulty in developing the intelligences, he is given extra help. So the same theory leads to two opposite kinds of recommendations."

> *"Once you realize things can be different, that's tremendously freeing."*

If teachers and parents believe in early identification and development of a child's strongest intelligence, is there any danger that children could be tracked prematurely in a direction that later is discarded? What about the possibility that a child's options could be narrowed too soon? Gardner acknowledges that this could happen if a teacher or parent is overly zealous, but points again to the flexibility of the theory. How it is used, he says, is not his choice, but that of others.

"Often people will read MI theory and say, 'We're got to find out what the child is talented in as early as possible and then push the child that way as much as possible.' It's an implication that you can draw from MI theory, but you can draw exactly the opposite implication. The theory doesn't prescribe or proscribe. I often say the decision about how to use MI theory is a value judgment.

"If I've just arrived in this country from Vietnam and I want my children to succeed, I'm probably going to push a strong talent that I see in my child. Who am I as a psychologist to tell you not to? It would be just as misleading to suggest to upper-middle class parents that they should send their child to dance camp for the rest of her life, as it would be to tell the recent immigrant not to let a child's strength develop, but to spend all his time working in the area of his weakness."

He adds, "I think a lot about these issues of talent and pushing people in certain ways. One thing that happens with prodigies is that other people make decisions for them when they're very young, and then they end up later — in adolescence — with a 'mid-life crisis.' "

Gardner insists that the theory's flexibility makes it imperative that educators question and clarify their own educational beliefs and philosophies prior to any attempt to implement MI theory. His guidance to school staff who are interested in the concepts of MI theory is straightforward.

"One, they should read more about it," he says. "The *Multiple Intelligences Reader*[1] is designed for that. Two, they should visit some schools which are doing it or have the people come to them. Three, and most important, they must see what needs people at their schools have which this can help them with. If there isn't consensus that there is a problem or a situation which can be improved with this kind of work, then it's dead on arrival. As



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most educators know, new ideas produce massive resistance in a school. Unless you can get people on board, it won't work."

How did Gardner begin thinking about MI theory in terms of schooling? As he explains, at the time that he wrote *Frames of Mind* he did not anticipate a response from the educational community, since it was conceived originally for an audience of psychologists. He remembers his surprise at the degree of interest that educators showed.

"I wasn't expecting the amount of attention it received from educators. But often when people are very interested in what you do, you become interested in what they do. So shortly after *Frames of Mind* was published, I began doing more work in the schools than anything I had done before."

Although the Key School in Indianapolis [*see next article*] was the first in the country to organize a school around the concepts of MI theory, Gardner points to many other efforts nationwide. "Depending on how you count them, you can say there are twenty schools or 500. There are approximately 500 places that claim they are influenced by my work, but to my personal knowledge somewhere between one or two dozen schools actually have held faculty seminars and tried to think through curriculum, pedagogy, and assessment in terms of theory."

## The 7 Intelligences

**Musical Intelligence**
Individuals show the ability to play a musical instrument, understand musical notation, and ultimately, compose original music.

**Bodily-Kinesthetic Intelligence**
This intelligence evinces itself in individuals who show the ability to use their bodies to play sports, convey emotions, and use tools.

**Logical-Mathematical Intelligence**
Often called "scientific thinking," this intelligence is marked by the ability to problem-solve rapidly in a nonverbal manner.

**Linguistic Intelligence**
Expressing ideas and communicating with others is almost universal; some (such as writers) possess this intelligence to a remarkable degree.

**Spatial Intelligence**
This intelligence is necessary for navigation and successful use of maps. It is also necessary in the visual arts.

**Interpersonal Intelligence**
People with high degrees of interpersonal intelligence are especially sensitive to others' moods, motivations, and intentions.

**Intrapersonal Intelligence**
Thoroughly understanding oneself, one's own motivations and behaviors is the hallmark of this intelligence.

For a full explanation of multiple intelligences theory, please see *Multiple Intelligences: The Theory in Practice*, by Howard E. Gardner (1993, Basic Books).

*An Ideal School: Does it Exist?*

Does Gardner have a vision of an ideal school? In his response, he turns first to a brief description of current collaborative work he has entered into under the acronym of Project ATLAS. "The ATLAS Project was prompted by the New American Schools Development Corporation (NASDC)," he says, "and is an attempt to meld the ideas and structures of four organizations — the Coalition of Essential Schools, Comer's School Development Program, the Development Group at Project Zero, and the Education Development Center (EDC), which is a huge curricular and instructional development place near Boston.

"The reason we wanted to work together is that each of us ran into frustrations in our own work. Comer has wonderful procedures for getting schools to change but he hadn't really taken on what he calls the CIA: curriculum, instruction, and assessment. In the case of both the EDC and Project Zero, we have many interesting kinds of approaches, programs, and techniques, but they've never been put together into an entire school approach. Rather, they get picked up, dropped, and transmogrified. There is not a structure within which they can be placed.

"Sizer was working primarily at the high school level, almost exclusively at the time. Also, there was difficulty in working with inner-city schools, which is an interest of his, and Comer has lots of experience in that setting. While Sizer has very clearly and importantly articulated ideas about curriculum and pedagogy, there were few materials that had been developed by the Coalition.

"From our point of view, an ideal school needs to blend together a number of different current ideas and structures which usually haven't been integrated. We're now trying to develop some models."

These models, Gardner notes, are systemic. "One, we are trying to cover all areas of the child's experience. That is, growing up as a citizen, as a worker, as a student of different subject matters, as a performer, and so on. Number two, we are trying to work K-12, by forming what we call a pathway. Starting in kindergarten, we have ideas and procedures that go right through 12th grade. That's very important, because if a child leaves one school and goes to another and the two have no consistency, then what is ideal in one place is disastrous in the other and vice versa.

"The third aspect of the system—something on which most school reformers have now come to concur—is that it isn't all that difficult to have a good school. What is important—but very challenging—is to have a good district. We're deliberately working with three districts in the Northeast because we want to see whether ideas which might make one good school can make a lot of good schools."

Gardner insists he does not have a narrow vision of an ideal school. Above all, he repeats the importance of flexibility and

context. Many good schools exist, he says; some function best in an inner-city setting and others function effectively in a wealthy suburb.

"There are a number of different kinds of good schools that reflect the clientele and communities in which people live. Nevertheless, there are certain symptoms of a good school, none of them particularly surprising."

First of all, he stresses the importance of good leadership, which may be centered in the principal but could be found in other staff. "There must be a staff with some longevity, that is comfortable talking to one another, agreeing and disagreeing with one another civilly, and having procedures for dealing with disagreements. There must be parents in the community who are interested, supportive, and involved in the interaction with folks in the school. There must be a school board and administration that encourages experimentation and is willing to see how it works."

However, Gardner does not believe in experimentation without a good plan already in place and considerable thought and discussion expended by educators. "You shouldn't be allowed to experiment unless you have some way of seeing how it works, but people shouldn't be penalized just because things don't work, as long as they are willing to try a new way and reflect on its course, or to resume previous approaches."

Students are the most important part of an ideal school, he maintains. "My definition of understanding is the capacity to take what you learn in school and use it in new ways. If you can't do that, I don't think the school is any good. I put that right in the center of a good school. You won't have kids who are excited and engaged and able to use their knowledge unless you have leadership and teachers who are comfortable with one another and some kind of overall plan."

*Implementation of MI Theory*

Although Gardner insists that there isn't an "MI way" for implementation of some of the ideas central to the theory, he acknowledges that for structural reasons elementary schools have been much more successful adapting the concepts to their setting. "Things are quite fixed in secondary schools," he observes. "Kids go from one class to another; there are fairly clear goals set by the district and by the College Board. Anybody who deviates from these is at risk of getting into trouble. So it is difficult to take on new ideas at the high school level."

Nonetheless, MI theory can be used in schools even where a classical curriculum is present. "Multiple intelligences, in principle, isn't consistent with a fairly traditional kind of curriculum, but it can be used even with a very classical curriculum. Obviously, schools with more of a project orientation, which are more open to interdisciplinary work, which allow kids to proceed at their own pace, which recognize that every child is not going to learn best in the same way, are going to have an easier time than places which are run like boot camp.

"Multiple intelligences is probably the most congenial at the preschool level because most preschools allow kids a fair amount of choice. The periods are not too carefully timed; there is lots of free time. There isn't pressure to assess students in a certain way. There isn't a curriculum that has to be covered.

"I think the reason that people at the elementary level are attracted to the ideas is because they see the theory as a way of recognizing something they already know: kids are different from one another. But also it provides a means for moving the curriculum, pedagogy, and assessment in a way with which they are comfortable. It provides a kind of protective shield or cover for folks who have some ideas. The ideas might be more difficult to implement in the absence of the theory that comes out of Harvard and has a certain amount of empirical data to support it."

The theory of multiple intelligences, Gardner believes, works as well in graduate school as it does in preschool. "Appreciating that people are different from one another, that they learn differently, that they don't all have the same interests, is important at any age. If you look at implementation structurally, there are more impediments in certain situations than in others. Recently, the MI perspective has caught on a lot in gifted programs, particularly in places where people want to expand the definition of giftedness. As long as giftedness is based on IQ there is no interest in MI theory. If people want to provide more different kinds of experiences to gifted kids, then MI theory is very helpful."

*Mistakes Educators Make*

What is the biggest mistake made in conventionally structured schools? Gardner sighs, then responds: "The most crippling thing is people's unawareness that schools can be different. For most people, school means kids sitting at desks, filling in worksheets, being quiet, occasionally answering questions from teachers who speak 90% of the time. They have a textbook, they take tests based on the textbook. If they digest and respond to the textbook with what I call 'the correct answer compromise,' then they go ahead. Otherwise, they're misfits.

"Once you realize that things can be different, that's tremendously freeing. It doesn't mean that every new idea is good and that every experiment is going to work, but since there is some consensus in this country that most of our schools are not working very well, unless you realize you can be an agency for change, things aren't going to change."

He adds thoughtfully, "I would say the biggest problem isn't money or ideas. It's the mental set that says that things have to be the way they were for me when I was in school whether I loved things or hated them. Very often it is the people who hated school and didn't do well in school who are the most resistant to having it any different."

[1]Gardner, H. E. (1993). *Multiple intelligences: the theory in practice.* New York: Basic Books.



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# THE MI KEY

*Patricia Bolaños became acquainted with Howard Gardner's theory of multiple intelligences in the mid-1980s, when she brought it to the attention of a group of teachers with whom she worked. Coalescing around Gardner's ideas, Bolaños and the others decided to use the concepts surrounding multiple intelligences theory as the foundation for a small school of their own in the inner city of Indianapolis — after they were unable to influence significantly the culture of the school where they were teaching at the time. With the superintendent's approval, and with some money from the Lilly Endowment slated for initial planning, Bolaños and the group of teachers embarked upon a course that resulted in the Key School, an elementary school for grades K-5. In Fall 1993, the Key Middle School for grades 6, 7, and 8 opened; a high school is planned for Fall 1994 that will add one grade level a year, beginning with grade 9. Bolaños holds degrees in arts education and is completing a doctorate in arts education and administration from Indiana University. A veteran teacher and school administrator, she believes strongly in a non-competitive learning atmosphere within which children's multiple intelligences can develop and thrive. This atmosphere — along with a commitment to multiple intelligences theory — distinguishes the Key School's mission.*

The Key School is most definitely not a traditional school. Rewards and competition are not valued; grades are not given. Although there is a regular, mandated curriculum in the main content areas common to most schools, an additional curriculum of apprenticelike "pods" — which can be chosen by all students according to their interests and abilities — is an integral part of the school's program. Through the pods, school staff work to strengthen students' talents and build upon their interests.

Another departure from conventional schooling is evident in the grouping formations seen in both the elementary and middle schools. Patricia Bolaños, the Key School's principal, points to them with pride. "We have seven classrooms which are cross-age groups," she says, "three primary classes for grades K, 1, and 2; two intermediate classes for grades 3, 4, and 5; and an experimental pairing of two teachers who teach K-1 and 2 through 5."

> "Students are encouraged to make choices here."

The school's population is drawn from the city of Indianapolis, and admission is based on lottery. Diversity is reflected in the fact that the school pulls a large percentage of minority children — 45% at the elementary and middle school levels, respectively — and 30% qualify for free or reduced lunch.

But in spite of its egalitarian student mix, Bolaños says that the school has been accused of elitism. "We place some requirements on the parents," she explains, "so the students aren't screened, but the parents are."

What must parents do in order for their children to attend the Key School? "At the elementary level, parents have to provide transportation for their children to and from the school," she responds. "Obviously that means we will get a parent who is willing to go out of her way to get the child to school and have him picked up in the afternoon."

She notes parenthetically that at the middle school level, bus transportation is provided by the district, which relieves parents of the transportation reponsibility.

"Secondly, we require all parents to come to three out of the four parent-teacher conferences that we hold every year. In the past three years, we've had 100% of the parents meet that requirement. When we have parents who are in danger of not meeting the requirement, teachers pursue them. They'll call parents, they'll pester them, they'll schedule a conference at a mutually convenient time."

Although the roots of the school are cemented in a foundation of years of teacher planning, research, and small seed grants, Bolaños explains that the multiple intelligences theory of Howard Gardner provided the theoretical framework upon which the school could be built. The original eight teachers who decided to form the school resonated to Gardner's theory of multiple intelligences, finding in it ideas sympathetic to their own beliefs and educational philosophy.

"We had a mix of teachers," Bolaños recollects, "primary, intermediate, an instrumental music teacher, a physical education teacher, and myself. We had worked together before on theme-based interdisciplinary curriculum.

"We used Gardner's theory as a basis for a grant proposal we submitted to the state for money we were trying to get through gifted and talented education. We were given $25,000 which we brought back to our school. We tried to get the whole school involved in what we were doing."

But the school as a whole was resistant to the sort of curricular and pedagogical change that the eight teachers advocated. As Bolaños recollects ruefully, "What we did was cause problems." Realizing they would not win over the staff where they were teaching, the group decided to try to open a school of their own.

After two years of planning — which was funded by the Lilly Endowment — the elementary school opened in the Fall of 1987 as a K-6 school. Bolaños claims that MI theory has withstood the dual tests of time and practical application. "There isn't an idea that we dropped from the original design. We keep adding to and improving the basic priorities that we established at that time, such as finding a child's area of strength and building upon it."

An atmosphere of continuous improvement informed their planning. "When we opened, we had grade-level grouping. One period a day was called pod group, and kindergartners through sixth graders could be in that class. It turned out to be the most popular class, and teachers discovered that younger and older students could work together very nicely.

"Later on, as we dealt with issues such as getting rid of grades and competitive work, we moved to cross-age heterogeneous grouping."

*Placement in a Pod*

Placement in pods is determined by teachers, based on student preferences. As Bolaños explains it, even kindergartners may choose their pod. The process begins when teachers decide what they want to teach all year — in addition to the mandated curriculum — and furnish a brief written description of their respective pods. These descriptions are compiled and sent to students' homes with a cover letter and sign-up sheet. "We ask the parent to go over the material with the student and let the student decide what her favorite pod might be."

Teachers sort and categorize choices, and if too many students request one pod, do a lottery. "If you have room for thirteen students in a pod and thirty apply, a lottery is done for the thirteen slots. The other students are then placed in their second or possibly third pick."

Isn't placement highly subjective? Bolaños defends the process, saying, "We try to be as fair as we can. Teachers work together sorting student requests; we try very conscientiously to put the child in a pod that suits him or her. In the first few weeks of school, if we find that a child has gotten into a pod and it's not her area of strength, then teachers will negotiate to see whether they can find a pod more suitable to the child's area of strength."

Actual time committed to in-depth development of a child's interests is substantial: each child has the same amount of time for science, math, language arts, physical education, instrumental music, and art. "This one period a day is dedicated to their area of high interest. If a child really likes the visual arts, she will have four periods a week of visual arts, or two double periods. They could have up to nine periods of visual arts a week. The same applies to a math, science, or music area."

Is there a danger that students could narrow their options prematurely through their choice of a pod? What about the possibility that youngsters could track themselves in a definitive direction without understanding all their options? "Gardner was concerned about that," Bolaños says thoughtfully. "He told us that some students have strengths in many areas, and to be sure that a student isn't locked into one choice year after year."

She continues, "But students are encouraged to make choices here. They are functioning in a culture where their opinion counts. They choose what types of projects they want to create, what kinds of activities they want to do in the flow activity center, and what type of pod they want to participate in. We consider all three things extremely important to our program. It's very necessary for developing a child's interpersonal intelligence and understanding of himself, and also being able to build on their strengths and find ways to cope with their weaknesses in some way."

*Assessment*

How is student progress assessed? Given the complex nature of student groupings and projects, is it problematic? Bolaños replies, "We've had to develop our own assessment criteria. We worked for five years developing theme-centered curriculum, sharing it, talking about it, having students do projects and having others evaluate them. All along, we had a commitment to developing video portfolios of the children."

She is candid about how Project Zero staff at Harvard disagreed with the direction of their early assessment efforts. The conflict, however, resulted in growth.

"I had a conversation with Howard Gardner and the staff person at Project Zero who disagreeed with our approach, and the result was a challenge that we write the criteria by which we were making judgments. I took this challenge to the staff and suggested a structure for writing the criteria, based on a theory of David Feldman's, a colleague of Gardner's."

The staff invited Feldman to the school to explain his theory and review the work that had already been done. The next step was to take a subject area and write how students functioned at the beginning level. "We asked: What do we expect all of our children to be able to do here?"

As Bolaños explains it, the next level took a year of work during which staff wrote descriptions of three stages they identified in a child's development. "We called these stages developmental performance descriptors. The following Summer we selected examples of student work that were the best we could find, thinking we could call them benchmarks. Since then we've changed the name because the word is used differently in educational circles and doesn't describe what we mean.

"We now call them quality exemplars, and the way we defined them was to take a week where every teacher brought in examples of the best student work they had found over the five or six years we had been working together. Most, but not all, of this was on videotape. We all viewed the material and then looked at the written



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criteria we had developed, comparing what we had written with the example presented to us.

"We now have a list of about 18 examples of student work on which we want to create audit trails so that we can show what the themes were and what lessons students were exposed to when they did this work."

She gives an example. "We have three sixth-grade girls who wrote a musical composition about a train going through a tropical rain forest. They talk about their composition; they perform it. The instrumental music teacher critiques their work, and all of this is on videotape. With that, we have a set of written material that contains all the lessons the girls were exposed to in all subject areas during that theme development time as well as the criteria for music.

"What we would like to do," she says with enthusiasm, "is have examples across the seven areas of intelligence. That would include student work and the audit trail of our documentation of what was going on in the school at the time the work was produced."

Standardized tests, she argues, do not measure what the Key School teaches, yet by law they must administer them. "We're accredited for five years," Bolaños explains. "At first, we didn't sort students at all. We didn't send any students out of the program and we didn't retain students.

"So when our standardized test scores came in, they were not as high as expected. I explained that the reason was we were not sorting our students into special programs.

"Now we have a resource teacher, and special students are identified but still are part of our program. However, they are no longer averaged into our standardized test scores. As a result, our scores rose. It's simply a matter of controlling who gets tested."

Bolaños obviously does not like the concessions the school has made. "We were forced to do it, and I regret it. Even when we have high standardized test scores, I never talk about it because we don't separate out separate skills to teach. What we are doing does not get measured on standardized tests, but we are stuck with them."

### *Demands on Staff*

Does the type of intensive work required by a teacher-developed assessment scheme — above and beyond the demands of daily teaching — require a certain temperament in a teacher? "We look for people who value collaboration," Bolaños replies. "We look for people who don't feel they have all the answers, who are still searching. We want people who understand the importance of intrinsic motivation. If they are highly competitive, they won't fit in here because we don't use the reward system with staff or with students. We look for people who know their discipline, but the ideal people are ones who are well-rounded in their own discipline but are willing to stretch outside that discipline to learn from other teachers."

Even with the right staff, however, collaboration can be a challenge. "We've learned over the years to negotiate and discuss differences of opinion without getting into a fight," Bolaños says candidly. "And we have a very stable staff. People don't leave us. Since we opened this school, one teacher left to go into administration and another was cut. But those are the only two who have left, and we're in our seventh year."

What ongoing program of staff development does she recommend to others interested in the concepts central to multiple intelligences theory? "Whoever controls the budget in schools needs to budget time for teachers to plan and think together," she says slowly. "They shouldn't staff a school so tightly that teachers only have time for one period for preparation. They need to realize that teachers are still working when they're thinking and planning together, and they shouldn't be expected to do that at the end of the school day on their own time. Thinking and planning should be part of being a professional educator."

# The MI Epiphany

*In this sidebar, we explore how MI theory has been implemented at the New City School in St. Louis, Missouri, where primary emphasis is placed on developing interpersonal and intrapersonal intelligences.*

As Tom Hoerr tells it, a two-month sabbatical — during which he read Howard Gardner's *Frames of Mind* — resulted in a professional epiphany that has led to the full-scale implementation of multiple intelligences theory in his school. He explains that the concepts in the book so excited him that he invited teachers to join him in discussions of each chapter.

"Teachers worked in tandem," he says, "so a first grade and a fourth grade teacher might be responsible for presenting the chapter to the rest of us. That made for some wonderful committee meetings."

He admits that because he is principal of an independent school, its structure permits — and even encourages — greater flexibility than do public schools. "I used to be a public school principal," he notes, "and creativity and flexibility are much stronger in this setting."

The New City School, an independent school with 355 students, begins at age 3 and continues through sixth grade. Drawing from 47 zip codes in the St. Louis area, the school has a 26% minority population and provides assistance to approximately 20% of its students. MI theory met with little resistance when its principal, Tom Hoerr, decided to explore its concepts with his staff.

After galvanizing his staff around the concepts central to MI theory, Hoerr set up a positive structure within which all staff could work. "We made lists, such as: 'What We're Already Doing,' because we felt we should not get depressed. Another was: 'These Are Things We Could Do Easily,' and a third was: 'These Are Things We Could Do If We Had Money.' These lists reminded us how easily you can have some quick successes, and that we were doing a lot of the MI things already."

Sensitive to the fact that he didn't want a polarized staff, Hoerr insisted that teachers discuss what they needed to do to involve other faculty members. "We constantly talked about it, so the concentric circles we were building continued to grow."

Although Hoerr visited the Key School — in fact he claims he was inspired by its work [*see p.* 6] — he and his staff have selected a different approach. "I believe that the biggest factor in determining success is the intrapersonal intelligence: knowing yourself, your strengths and weaknesses."

His favorite example pertains to spelling. "If you don't spell well, that's OK, because you'll accommodate for it. The people who don't get ahead are those who continue to make the same mistakes. They're not aware of what they can and cannot do, so we place a great premium on intrapersonal intelligence here."

In contrast to the Key School, New City tried pods and abandoned them, Hoerr says. "We imagine kids having seven different little test tubes — all of which need to be filled as much a possible. If you look at the American high school, it offers a multiple intelligence approach because it has drama club and art club and P.E. But by the time kids get to high school, the damage is often done. The may have a talent but they're not 'smart.' We're trying to back up and help them see their strengths before they reach high school.

"The MI approach is wonderful because it focuses on kid's strengths," he concludes. "Most schools miss what's really important in life. People who get ahead in life do so because of interpersonal qualities: working with others, having confidence, being tenacious. Who you are is more important than what you know."

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